REMARKS

Claims 1 to 30 are pending in the application, of which claims 1, 9, 11, 18, 20, 27 and 29 are the independent claims. Favorable reconsideration and further examination are respectfully requested.

Initially, the drawings were objected to for failing to label Fig. 11 as prior art. Applicants respectfully traverse this objection. Fig. 11 shows a computer system programmed with an embodiment of the invention. Therefore, although the hardware shown may constitute prior art, the system as programmed (as shown) is not prior art. Withdrawal of the objection to the drawings is therefore respectfully requested.

Claims 1 to 30 were rejected under 35 U.S.C. §102(b) over U.S. Patent No. 5,701,404 (Stevens). As shown above, Applicants have amended the claims to define the invention with even greater clarity. In view of these clarifications, reconsideration and withdrawal of the art rejection are respectfully requested.

Amended independent claim 1 defines a method of trimming a parametric surface. The method includes applying a trimming texture based on a trimming curve to the parametric surface. The trimming texture is applied by texture mapping the trimming texture onto the parametric surface. By texture mapping the trimming texture onto the parametric surface, it is possible to perform trimming using less computation, particularly when the parametric surface deforms or moves in some way, as described, e.g., on pages 5 and 6 of the specification.

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The applied Stevens patent is not understood to disclose or to suggest the foregoing features of claim 1, particularly with respect to applying the trimming texture by texture mapping the trimming texture onto the parametric surface.

More specifically, Stevens describes a trimming process in which vectors from selected points of a trimming curve are projected onto a surface (see, e.g., Figs. 3A, 4 and 5 of Stevens). The resulting projections are then connected to produce a trimming curve on the surface (see, e.g., Fig. 15B of Stevens). Nowhere, however, does Stevens describe applying a trimming texture by texture mapping the trimming texture onto a surface.

In this regard, it was said on page 3 of the Office Action, with respect to dependent claim 7, that Stevens inherently discloses drawing a material texture on a surface. Applicants respectfully disagree. That is, as described in column 14, lines 7 et seq., the Stevens method is directed to drawing curve segments onto a surface, not to mapping texture onto a surface as in the invention.

Thus, with specific reference to the language of claim 1, Stevens is not understood to disclose or to suggest at least applying a trimming texture by texture mapping the trimming texture onto a parametric surface. Accordingly, claim 1 is believed to be patentable over the art.

Amended independent claim 11 is an article of manufacture claim that roughly corresponds to claim 1; and amended independent claim 20 is an apparatus claim that roughly corresponds to claim 1. These claims are also believed to be patentable for at least the reasons set forth above with respect to claim 1.

Amended independent claim 9 defines a method of trimming a parametric surface, which includes mapping a trimming texture on the parametric surface to create a trimmed section and a rendered section, the trimming texture being mapped by texture mapping, and rendering the parametric surface based on an application of the trimming texture to produce a plurality of polygons approximating the parametric surface.

As explained above with respect to claim 1, Stevens is not understood to disclose or to suggest texture mapping a trimming texture onto a parametric surface. Accordingly, claim 9 is also believed to be patentable over the art.

Amended independent claim 18 is an article of manufacture claim that roughly corresponds to claim 9; and amended independent claim 27 is an apparatus claim that roughly corresponds to claim 9. These claims are also believed to be patentable for at least the reasons set forth above with respect to claim 9.

Amended independent claim 29 defines method for use in rendering images from data for an original three-dimensional model. The method includes obtaining a trimming texture based on a trimming curve for the three-dimensional model, applying the trimming texture to the three-dimensional model, the trimming texture being applied by texture mapping the trimming texture onto the parametric surface, and rendering an image based on the three-dimensional model.

The Stevens patent does not describe applying a trimming texture by texture mapping, as does the invention of claim 29. Accordingly, claim 29 is believed to be patentable over the art.

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In view of the foregoing amendments and remarks, the entire application is

believed to be in condition for allowance, and such action is respectfully requested at the

Examiner's earliest convenience.

Applicants' undersigned attorney can be reached at the address shown below.

Telephone calls regarding this application should be directed to the undersigned at 617-

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Respectfully submitted,

Date: October 24, 2002

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

--1. (Amended) A method of trimming a parametric surface, comprising:

applying a trimming texture based on a trimming curve [for the parametric surface]

to the parametric surface, the trimming texture being applied by texture mapping the

trimming texture onto the parametric surface.

9. (Amended) A method of trimming a parametric surface comprising:

mapping a trimming texture [curve] on the parametric surface [a trimming texture]

to create a trimmed section and a rendered section, the trimming texture being mapped by

texture mapping; and

rendering the parametric surface based on an application of the trimming texture to

produce a plurality of polygons approximating the parametric surface.

11. (Amended) An article comprising a computer-readable medium that stores

instructions for use in trimming a parametric surface, the instructions for causing the

computer to:

apply a trimming texture based on a trimming curve [for the parametric surface] to

the parametric surface, the trimming texture being applied by texture mapping the

trimming texture onto the parametric surface.

18. (Amended) An article comprising a computer-readable medium that stores

instructions for use in trimming a parametric surface, the instruction for causing the

computer to:

map a trimming <u>texture</u> [curve] on <u>the parametric surface</u> [a trimming texture] to

create a trimmed section and a rendered section<u>, the trimming texture being mapped by</u>

<u>texture mapping</u>; and

render the parametric surface based on an application of the trimming texture to

<u>produce</u> a plurality of polygons approximating the parametric surface.

20. (Amended) An apparatus for use in trimming a parametric surface,

comprising:

a memory which stores computer instructions; and

a processor that executes the computer instructions to:

apply a trimming texture based on a trimming curve [for the parametric

surface] to the parametric surface<u>, the trimming texture being applied by texture</u>

<u>mapping the trimming texture onto the parametric surface.</u>

25. (Amended) The apparatus of claim 21, further comprising instructions for

causing the computer to[;]<u>:</u>

draw a material texture on the parametric surface based on the trimming texture.

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27. (Amended) An apparatus comprising a computer-readable medium that stores instructions for use in trimming a parametric surface, the instruction for causing the computer to:

map a trimming texture [curve] on the parametric surface [a trimming texture] to create a trimmed section and a rendered section; and

render the parametric surface based on an application of the trimming texture to produce a plurality of polygons approximating the parametric surface.

29. (Amended) A method for use in rendering images from data for an original three-dimensional model, comprising:

obtaining a trimming texture based on a trimming curve for the three-dimensional model;

applying the trimming texture to the three-dimensional model, the trimming texture being applied by texture mapping the trimming texture onto the parametric surface; and

rendering an image based on the three-dimensional model.--